

Isc N-Channel MOSFET Transistor

AOI4130

• FEATURES

- With TO-251(IPAK) package
- Low input capacitance and gate charge
- Low gate input resistance
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

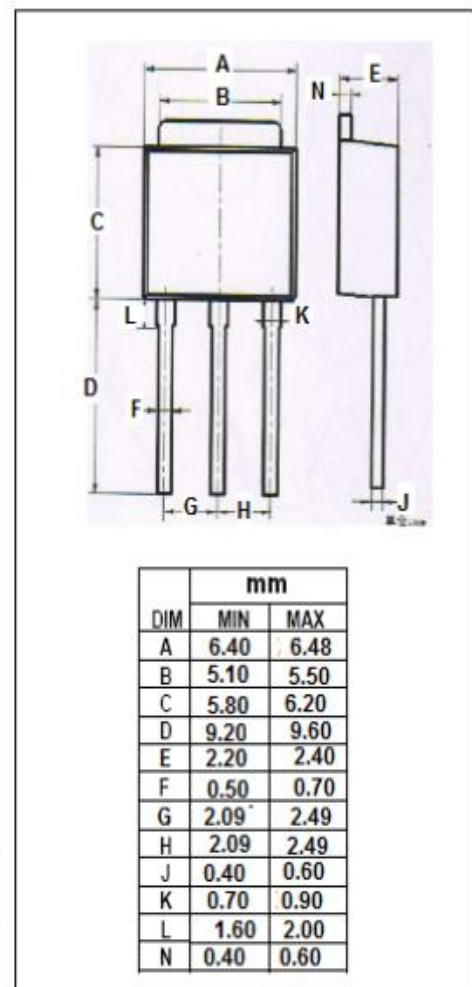
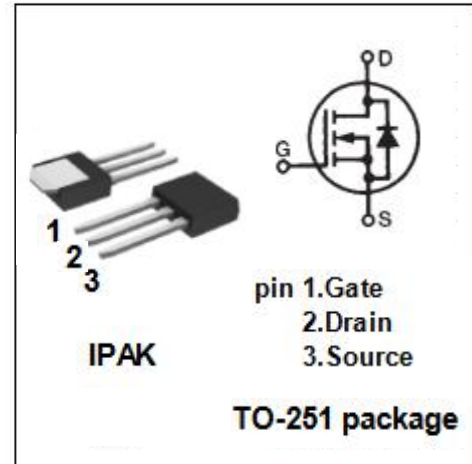
- Switching applications
- Load switch
- Power management

• ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{DSS}	Drain-Source Voltage	60	V
V _{GSS}	Gate-Source Voltage	±20	V
I _D	Drain Current-Continuous T _c =25°C T _c =100°C	30 20	A
I _{DM}	Drain Current-Single Pulsed	74	A
P _D	Total Dissipation @T _c =25°C	52	W
T _j	Max. Operating Junction Temperature	175	°C
T _{stg}	Storage Temperature	-55~175	°C

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th(ch-c)}	Channel-to-case thermal resistance	2.9	°C/W



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D = 0.25mA	60		V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =±20V; I _D =0.25mA	1.6	2.8	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =20A		24	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0V		±0.1	μA
I _{DSS}	Drain-Source Leakage Current	V _{DS} =60V; V _{GS} = 0V; T _c =25°C T _c =55°C		1 5	μA
V _{SDF}	Diode forward voltage	I _{SD} =1A, V _{GS} = 0 V		1	V

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